

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

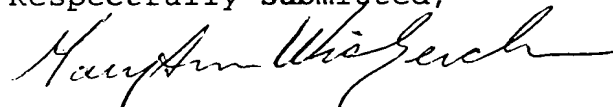
Applicants : Patrick Francis )  
Grealish, et al )  
For : GLYCOSYLATION MODIFIED IL-20 )  
Docket No. : X-15530 )

STATEMENT TO SUPPORT FILING AND SUBMISSION IN ACCORDANCE  
WITH 37 C.F.R. 1.821(f) (SEQUENCE LISTING)

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Sir:

I hereby affirm that the content of the paper and computer readable copies of the Sequence Listing, submitted in accordance with 37 C.F.R. 1.821(c) and (e), respectively, are the same.

Respectfully submitted,



MaryAnn Wiskerchen  
Agent for Applicants  
Registration No. 45,511  
Phone: 317-655-9326

Eli Lilly and Company  
Patent Division  
P.O. Box 6288  
Indianapolis, Indiana 46206-6288

August 11, 2003



PCT

## RAW SEQUENCE LISTING

DATE: 02/17/2005

PATENT APPLICATION: US/10/523,488

TIME: 11:29:00

Input Set : A:\X-15530 National.ST25.txt

Output Set: N:\CRF4\02172005\J523488.raw

3 <110> APPLICANT: Grealish, Patrick F.  
 4 Rowlinson, Scott W.  
 6 <120> TITLE OF INVENTION: Glycosylation Modified IL-20  
 8 <130> FILE REFERENCE: X-15530  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/523,488  
 C--> 11 <141> CURRENT FILING DATE: 2005-02-03  
 13 <150> PRIOR APPLICATION NUMBER: US 60/406273  
 14 <151> PRIOR FILING DATE: 2002-08-27  
 16 <160> NUMBER OF SEQ ID NOS: 22  
 18 <170> SOFTWARE: PatentIn version 3.3  
 20 <210> SEQ ID NO: 1  
 21 <211> LENGTH: 176  
 22 <212> TYPE: PRT  
 23 <213> ORGANISM: Homo sapiens  
 25 <400> SEQUENCE: 1  
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 28 1 5 10 15  
 31 Leu Leu Trp Thr Pro Ser Thr Gly Leu Lys Thr Leu Asn Leu Gly Ser  
 32 20 25 30  
 35 Cys Val Ile Ala Thr Asn Leu Gln Glu Ile Arg Asn Gly Phe Ser Glu  
 36 35 40 45  
 39 Ile Arg Gly Ser Val Gln Ala Lys Asp Gly Asn Ile Asp Ile Arg Ile  
 40 50 55 60  
 43 Leu Arg Arg Thr Glu Ser Leu Gln Asp Thr Lys Pro Ala Asn Arg Cys  
 44 65 70 75 80  
 47 Cys Leu Leu Arg His Leu Leu Arg Leu Tyr Leu Asp Arg Val Phe Lys  
 48 85 90 95  
 51 Asn Tyr Gln Thr Pro Asp His Tyr Thr Leu Arg Lys Ile Ser Ser Leu  
 52 100 105 110  
 55 Ala Asn Ser Phe Leu Thr Ile Lys Lys Asp Leu Arg Leu Cys His Ala  
 56 115 120 125  
 59 His Met Thr Cys His Cys Gly Glu Glu Ala Met Lys Lys Tyr Ser Gln  
 60 130 135 140  
 63 Ile Leu Ser His Phe Glu Lys Leu Glu Pro Gln Ala Ala Val Val Lys  
 64 145 150 155 160  
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 68 165 170 175  
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 72 <211> LENGTH: 568  
 73 <212> TYPE: PRT  
 74 <213> ORGANISM: Homo sapiens  
 76 <400> SEQUENCE: 2  
 78 Met Arg Thr Leu Leu Thr Ile Leu Thr Val Gly Ser Leu Ala Ala His

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79 1          5          10          15
82 Ala Pro Glu Asp Pro Ser Asp Leu Leu Gln His Val Lys Phe Gln Ser
83          20          25          30
86 Ser Asn Phe Glu Asn Ile Leu Thr Trp Asp Ser Gly Pro Glu Gly Thr
87          35          40          45
90 Pro Asp Thr Val Tyr Ser Ile Glu Tyr Lys Thr Tyr Gly Glu Arg Asp
91          50          55          60
94 Trp Val Ala Lys Lys Gly Cys Gln Arg Ile Thr Arg Lys Ser Cys Asn
95 65          70          75          80
98 Leu Thr Val Glu Thr Gly Asn Leu Thr Glu Leu Tyr Tyr Ala Arg Val
99          85          90          95
102 Thr Ala Val Ser Ala Gly Gly Arg Ser Ala Thr Lys Met Thr Asp Arg
103          100          105          110
106 Phe Ser Ser Leu Gln His Thr Thr Leu Lys Pro Pro Asp Val Thr Cys
107          115          120          125
110 Ile Ser Lys Val Arg Ser Ile Gln Met Ile Val His Pro Thr Pro Thr
111          130          135          140
114 Pro Ile Arg Ala Gly Asp Gly His Arg Leu Thr Leu Glu Asp Ile Phe
115 145          150          155          160
118 His Asp Leu Phe Tyr His Leu Glu Leu Gln Val Asn Arg Thr Tyr Gln
119          165          170          175
122 Met His Leu Gly Gly Lys Gln Arg Glu Tyr Glu Phe Phe Gly Leu Thr
123          180          185          190
126 Pro Asp Thr Glu Phe Leu Gly Thr Ile Met Ile Cys Val Pro Thr Trp
127          195          200          205
130 Ala Lys Glu Ser Ala Pro Tyr Met Cys Arg Val Lys Thr Asp Arg Thr
131          210          215          220
134 Trp Thr Tyr Ser Phe Ser Gly Ala Phe Leu Phe Ser Met Gly Phe Leu
135 225          230          235          240
138 Val Ala Val Leu Cys Tyr Leu Ser Tyr Arg Tyr Val Thr Lys Pro Pro
139          245          250          255
142 Ala Pro Pro Asn Ser Leu Asn Val Gln Arg Val Leu Thr Phe Gln Pro
143          260          265          270
146 Leu Arg Phe Ile Gln Glu His Val Leu Ile Pro Val Phe Asp Leu Ser
147          275          280          285
150 Gly Pro Ser Ser Leu Ala Gln Pro Val Gln Tyr Ser Gln Ile Arg Val
151          290          295          300
154 Ser Gly Pro Arg Glu Pro Ala Gly Ala Pro Gln Arg His Ser Leu Ser
155 305          310          315          320
158 Glu Ile Thr Tyr Leu Gly Gln Pro Asp Ile Ser Ile Leu Gln Pro Ser
159          325          330          335
162 Asn Val Pro Pro Pro Gln Ile Leu Ser Pro Leu Ser Tyr Ala Pro Asn
163          340          345          350
166 Ala Ala Pro Glu Val Gly Pro Pro Ser Tyr Ala Pro Gln Val Thr Pro
167          355          360          365
170 Glu Ala Gln Phe Pro Phe Tyr Ala Pro Gln Ala Ile Ser Lys Val Gln
171          370          375          380
174 Pro Ser Ser Tyr Ala Pro Gln Ala Thr Pro Asp Ser Trp Pro Pro Ser
175 385          390          395          400

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Input Set : A:\X-15530 National.ST25.txt

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178 Tyr Gly Val Cys Met Glu Gly Ser Gly Lys Asp Ser Pro Thr Gly Thr
179           405                      410                      415
182 Leu Ser Ser Pro Lys His Leu Arg Pro Lys Gly Gln Leu Gln Lys Glu
183           420                      425                      430
186 Pro Pro Ala Gly Ser Cys Met Leu Gly Gly Leu Ser Leu Gln Glu Val
187           435                      440                      445
190 Thr Ser Leu Ala Met Glu Glu Ser Gln Glu Ala Lys Ser Leu His Gln
191           450                      455                      460
194 Pro Leu Gly Ile Cys Thr Asp Arg Thr Ser Asp Pro Asn Val Leu His
195 465           470                      475                      480
198 Ser Gly Glu Glu Gly Thr Pro Gln Tyr Leu Lys Gly Gln Leu Leu Ser
199           485                      490                      495
202 Ser Val Gln Ile Glu Gly His Pro Met Ser Leu Gln Pro Pro Ser Gly
203           500                      505                      510
206 Pro Cys Ser Pro Ser Asp Gln Gly Pro Ser Pro Trp Gly Leu Leu Glu
207           515                      520                      525
210 Ser Leu Val Cys Pro Lys Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr
211           530                      535                      540
214 Ser Asp Leu Glu Gln Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu
215 545           550                      555                      560
218 Ala Leu Thr Val Gln Trp Glu Ser
219           565
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223 <211> LENGTH: 311
224 <212> TYPE: PRT
225 <213> ORGANISM: Homo sapiens
227 <400> SEQUENCE: 3
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233 Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr Asp Glu Val
234           20                      25                      30
237 Ala Ile Leu Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser Thr Asn Met
238           35                      40                      45
241 Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro Gly Glu Thr Val
242           50                      55                      60
245 Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu Ser Leu Tyr Thr Ser
246 65           70                      75                      80
249 His Ile Trp Ile Pro Ser Ser Trp Cys Ser Leu Thr Glu Gly Pro Glu
250           85                      90                      95
253 Cys Asp Val Thr Asp Asp Ile Thr Ala Thr Val Pro Tyr Asn Leu Arg
254           100                     105                     110
257 Val Arg Ala Thr Leu Gly Ser Gln Thr Ser Ala Trp Ser Ile Leu Lys
258           115                     120                     125
261 His Pro Phe Asn Arg Asn Ser Thr Ile Leu Thr Arg Pro Gly Met Glu
262           130                     135                     140
265 Ile Thr Lys Asp Gly Phe His Leu Val Ile Glu Leu Glu Asp Leu Gly
266 145           150                     155                     160
269 Pro Gln Phe Glu Phe Leu Val Ala Tyr Trp Arg Arg Glu Pro Gly Ala
270           165                     170                     175

```

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```

273 Glu Glu His Val Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu
274           180           185           190
277 Glu Thr Met Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe
278           195           200           205
281 Val Lys Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu Cys Val
282           210           215           220
285 Glu Val Gln Gly Glu Ala Ile Pro Leu Val Leu Ala Leu Phe Ala Phe
286 225           230           235           240
289 Val Gly Phe Met Leu Ile Leu Val Val Val Pro Leu Phe Val Trp Lys
290           245           250           255
293 Met Gly Arg Leu Leu Gln Tyr Ser Cys Cys Pro Val Val Val Leu Pro
294           260           265           270
297 Asp Thr Leu Lys Ile Thr Asn Ser Pro Gln Lys Leu Ile Ser Cys Arg
298           275           280           285
301 Arg Glu Glu Val Asp Ala Cys Ala Thr Ala Val Met Ser Pro Glu Glu
302           290           295           300
305 Leu Leu Arg Ala Trp Ile Ser
306 305           310
309 <210> SEQ ID NO: 4
310 <211> LENGTH: 174
311 <212> TYPE: PRT
312 <213> ORGANISM: Homo sapiens
314 <400> SEQUENCE: 4
316 Met His Ser Ser Ala Leu Leu Cys Cys Leu Val Leu Leu Thr Gly Val
317 1           5           10           15
320 Arg Ala Ser Pro Gly Gln Gly Thr Gln Ser Glu Asn Ser Cys Thr His
321           20           25           30
324 Phe Pro Gly Asn Asn Met Leu Arg Asp Leu Arg Asp Ala Phe Ser Arg
325           35           40           45
328 Val Lys Thr Phe Phe Gln Met Lys Asp Gln Leu Asp Asn Leu Leu Leu
329           50           55           60
332 Lys Glu Ser Leu Leu Glu Asp Phe Lys Gly Tyr Leu Gly Cys Gln Ala
333 65           70           75           80
336 Leu Ser Glu Met Ile Gln Phe Tyr Leu Glu Glu Val Met Pro Gln Ala
337           85           90           95
340 Glu Asn Gln Asp Pro Asp Ile Lys Ala His Val Asn Ser Leu Gly Glu
341           100          105          110
344 Asn Leu Lys Thr Leu Arg Leu Arg Leu Arg Arg Cys His Arg Phe Cys
345           115          120          125
348 Glu Asn Lys Ser Lys Ala Val Glu Gln Val Lys Asn Ala Phe Asn Lys
349           130          135          140
352 Leu Gln Glu Lys Gly Ile Tyr Lys Ala Met Ser Glu Phe Asp Ile Phe
353 145          150          155          160
356 Ile Asn Tyr Ile Glu Ala Tyr Met Thr Met Lys Ile Arg Asn
357           165          170
360 <210> SEQ ID NO: 5
361 <211> LENGTH: 176
362 <212> TYPE: PRT
363 <213> ORGANISM: Homo sapiens

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Input Set : A:\X-15530 National.ST25.txt

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365 &lt;400&gt; SEQUENCE: 5

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367 Met Lys Ala Ser Ser Leu Ala Phe Ser Leu Leu Ser Ala Ala Phe Tyr
368 1          5          10          15
371 Leu Leu Trp Thr Pro Ser Thr Gly Leu Lys Thr Leu Asn Leu Gly Ser
372          20          25          30
375 Cys Val Ile Ala Thr Asn Leu Gln Glu Ile Arg Asn Gly Phe Ser Glu
376          35          40          45
379 Ile Arg Gly Ser Val Gln Ala Lys Asp Gly Asn Ile Asp Ile Arg Ile
380          50          55          60
383 Leu Arg Arg Thr Glu Ser Leu Gln Asp Thr Lys Pro Ala Asn Arg Cys
384 65          70          75          80
387 Cys Leu Leu Arg His Leu Leu Arg Leu Tyr Leu Asp Arg Val Phe Lys
388          85          90          95
391 Asn Tyr Gln Thr Pro Asp His Tyr Thr Leu Arg Lys Ile Ser Ser Leu
392          100         105         110
395 Ala Asn Ser Phe Leu Thr Ile Lys Lys Asp Leu Arg Leu Cys His Ala
396          115         120         125
399 His Met Thr Cys His Cys Gly Glu Glu Ala Met Asn Ala Thr Ser Gln
400          130         135         140
403 Ile Leu Ser His Phe Glu Lys Leu Glu Pro Gln Ala Ala Val Val Lys
404 145         150         155         160
407 Ala Leu Gly Glu Leu Asp Ile Leu Leu Gln Trp Met Glu Glu Thr Glu
408          165         170         175

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411 &lt;210&gt; SEQ ID NO: 6

412 &lt;211&gt; LENGTH: 178

413 &lt;212&gt; TYPE: PRT

414 &lt;213&gt; ORGANISM: Homo sapiens

416 &lt;400&gt; SEQUENCE: 6

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418 Met Lys Ala Ser Ser Leu Ala Phe Ser Leu Leu Ser Ala Ala Phe Tyr
419 1          5          10          15
422 Leu Leu Trp Thr Pro Ser Thr Gly Leu Lys Thr Leu Asn Leu Gly Ser
423          20          25          30
426 Cys Val Ile Ala Thr Asn Leu Gln Glu Ile Arg Asn Gly Phe Ser Glu
427          35          40          45
430 Ile Arg Gly Ser Val Gln Ala Lys Asp Gly Asn Ile Asp Ile Arg Ile
431          50          55          60
434 Leu Arg Arg Thr Glu Ser Leu Gln Asp Thr Lys Pro Ala Asn Arg Cys
435 65          70          75          80
438 Cys Leu Leu Arg His Leu Leu Arg Leu Tyr Leu Asp Arg Val Phe Lys
439          85          90          95
442 Asn Tyr Gln Asn Arg Thr Pro Asp His Tyr Thr Leu Arg Lys Ile Ser
443          100         105         110
446 Ser Leu Ala Asn Ser Phe Leu Thr Ile Lys Lys Asp Leu Arg Leu Cys
447          115         120         125
450 His Ala His Met Thr Cys His Cys Gly Glu Glu Ala Met Lys Lys Tyr
451          130         135         140
454 Ser Gln Ile Leu Ser His Phe Glu Lys Leu Glu Pro Gln Ala Ala Val
455 145         150         155         160
458 Val Lys Ala Leu Gly Glu Leu Asp Ile Leu Leu Gln Trp Met Glu Glu

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## RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 02/17/2005

PATENT APPLICATION: US/10/523,488

TIME: 11:29:01

Input Set : A:\X-15530 National.ST25.txt

Output Set: N:\CRF4\02172005\J523488.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:14; Xaa Pos. 141,142,143

Seq#:15; Xaa Pos. 101,102,103

Seq#:16; Xaa Pos. 98,99,100

Seq#:17; Xaa Pos. 62,63,64

Seq#:18; Xaa Pos. 62,63,64,142,143,144

Seq#:19; Xaa Pos. 98,99,100,141,142,143

Seq#:20; Xaa Pos. 62,63,64,99,100,101

Seq#:21; Xaa Pos. 62,63,64,99,100,101,142,143,144

**VERIFICATION SUMMARY**

DATE: 02/17/2005

PATENT APPLICATION: US/10/523,488

TIME: 11:29:01

Input Set : A:\X-15530 National.ST25.txt

Output Set: N:\CRF4\02172005\J523488.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:743 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:128  
L:801 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:96  
L:867 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:96  
L:917 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:48  
L:993 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:48  
M:341 Repeated in SeqNo=18  
L:1081 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:96  
M:341 Repeated in SeqNo=19  
L:1145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:48  
M:341 Repeated in SeqNo=20  
L:1231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:48  
M:341 Repeated in SeqNo=21